

Remarks

Claims 1, 2 and 8-19 are currently pending.

35 U.S.C. § 103

The Examiner rejected claims 1, 2, and 8-17 under 35 U.S.C. § 103(a) as being unpatentable over Leoni et al. (US 4,717,746) in view of Wozniak (US Pat. No. 4,851,464). The Examiner also rejected claims 18-19 as being unpatentable over Leoni et al. in view of Wozniak and Burba et al. (US Pat. No. 4,440,900). Applicants traverse these rejections for the following reasons.

Applicants presently claimed invention is directed to an adhesion promoter for plastisols, characterized in that the adhesion promoter consists essentially of a polyaminoamide and 10 % - 60 % by weight of ethyldiglycol based on the total weight of adhesion promoter and wherein the polyaminoamide is obtained via condensation of a polyalkylene polyamine with a polymerized fatty acid and optionally a mono- and/or dicarboxylic acid. Support for this amendment can be found at, for example, paragraphs [0015] and [0024] of the published application. No new matter has been added.

In comparison, Leoni et al. teach an adhesion promoter consisting of a polyaminoamide obtained by condensation of a heterocyclic amine and a polycarboxylic acid. Leoni et al. teach away from the use of polyaminoamides obtained by condensation of an aliphatic amine and polymerized fatty acid since their use with plastisols causes an undesirable colored coating. This discoloring is further demonstrated by Leoni et al. in the Examples where a polyaminoamide obtained by condensation of triethylene tetramine and a polymerized fatty acid is added to a plastisol containing PVC, dioctyl phthalate (a primary plasticizer similar to that taught in Wozniak as discussed below) and CaCO₃.

The Examiner has added Wozniak for the purpose of including ethyldiglycol to solvate the adhesion promoter. However, even if one were to add Wozniak's ethyldiglycol to Leoni et al.'s adhesion promoter, he still would not arrive at an adhesion promoter consisting essentially of a polyaminoamide obtained by condensation of a polyalkylene polyamine with a polymerized fatty acid and 10 % - 60 % by weight of ethyldiglycol based on the total weight of adhesion promoter as presently claimed.

In addition, as already presented in Applicants earlier Response to Office Action filed June 22, 2009, Wozniak teaches an adhesion promoter system containing a polyaminoamide, a primary plasticizer (e.g. an alkyl phthalate) and a secondary plasticizer non-ionic solvent. Wozniak neither teaches nor suggests eliminating the primary plasticizer to form an adhesion promoter system containing only a polyaminoamide and secondary plasticizer non-ionic solvent, but instead asserts the improvement that its invention provides is a system comprising the combination of the polyaminoamide, the primary plasticizer, and the secondary plasticizer non-ionic solvent.

See U.S. Pat. No. 4,851,464 at col. 2, ll. 11-15.

Moreover, Wozniak teaches the amount of secondary plasticizer non-ionic solvent used in the plasticizer/promoter phase is an amount "effective to solvate" the polyaminoamide, this amount being in a range from 10-70 weight parts per 100 weight parts of PVC resin. *See id.* at col. 3, ll. 7-13. In comparison, the amount of ethyldiglycol in Applicants claimed invention is 10% - 60% by weight based on the total weight of adhesion promoter. Thus, Applicants claimed amount is significantly less than the amount taught in Wozniak. Wozniak neither teaches nor suggests that such low amounts of non-ionic solvent could or would be effective in an adhesion promoter system. In fact,

Wozniak indicates in the Examples that amounts of at least 40 weight parts of non-ionic solvent per 100 weight parts of PVC resin may be required.

Nevertheless, the Examples provided in the present application demonstrate that unexpectedly good adhesion can be achieved by combining the presently claimed low amounts of ethyldiglycol with a polyaminoamide obtained via condensation of a polyalkylene polyamine and a polymerized fatty acid to form an adhesion promoter useful in a plastisol composition (*see US 2007/0043153* at paragraphs [0024] and [0031] to [0041]). In particular, the plastisol composition of Example 3, which contained the polyaminoamide and only 0.4% of ethyldiglycol based on the total weight of the plastisol composition, exhibited surprisingly good adhesion. Additionally, high temperature storage stability and processability for the plastisol composition of Example 3 were vastly better than those exhibited for plastisol compositions which did not contain ethyldiglycol. Such results were not foreseeable. Therefore, in view of the above, Applicants respectfully request the rejection of claim 1, and all claims depending on claim 1, be withdrawn.

Claims 18 and 19 depend on claim 1. For all the reasons above, claim 1 is non-obvious. Therefore, claims 18 and 19 are also not obvious. Accordingly, Applicants respectfully request the rejection of claims 18 and 19 also be withdrawn.

The Commissioner of Patents is hereby authorized to deduct any fee due in connection with the filing of this document from Huntsman Corporation Deposit Account No. 08-3442.

Respectfully Submitted,

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